Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application. Please amend the claims as indicated below:

Listing of Claims

1. (Currently Amended) A lithographic process for producing one or more microstructures ~~high aspect ratio parts~~ from an ~~epoxy-type negative~~ SU-8 photoresist, wherein the SU-8 photoresist has a thickness greater than 0.7 mm, comprising the steps of:

(i) exposing ~~irradiating~~ a prebaked ~~masked epoxy-type negative~~ SU-8 photoresist on a substrate ~~with~~ to light at a total energy density ~~of from~~ in a range of about 18,000 to 35,000 mJ/cm^2, wherein the light comprises a combination of wavelengths including 436nm, 405nm, and 365nm, and wherein the exposing further comprises: ~~no more than 15% of the energy density is contributed by light having a wavelength of 400nm or less;~~

(a) exposing the SU-8 photoresist to the light without a filter;

(b) exposing the SU-8 photoresist to the light with a first filter that filters about 80% of the light at 365nm;

(c) exposing the SU-8 photoresist to the light with a second filter that filters about 90% of the light at 365nm; and

(d) exposing the SU-8 photoresist to the light with a third filter that filters all of the light at 365nm;

(ii) post-baking the ~~exposed~~ SU-8 photoresist at ~~elevated~~ a temperature of at least about 60°C; and

(iii) developing the ~~exposed~~ SU-8 photoresist in a solvent,

whereby a ~~high aspect ratio part~~ microstructure is produced.

Claims 2–8 (Canceled).

9. (Currently Amended) A process as claimed in claim 1, wherein the SU-8 photoresist is an octafunctional epoxidised novolac resin.

10. (Currently Amended) A process as claimed in claim 1, wherein the thickness of the photoresist ~~has a thickness~~ is in the range of 0.701 to 1.5 mm.

Claims 11–14 (Canceled).

15. (Currently Amended) A process as claimed in claim 1, wherein the ~~post bake~~ post-baking step comprises [[is]] a two step procedure in which the photoresist is heated to a first temperature of at least about 60ºC and subsequently to a second ~~higher~~ temperature that is higher than the first temperature.

16. (Previously Presented) A process as claimed in claim 1, wherein the method includes a step of rinsing the developed photoresist after step (iii) followed by drying.

17. (Currently Amended) A ~~part~~ microstructure fabricated using the process of claim 1, ~~or claim 4, wherein the fabricated part microstructure comprises an aspect ratio of greater than or equal to 40:1~~.

18. (Canceled).

19. (Currently Amended) A ~~process~~ microstructure as claimed in claim 17, wherein the ~~high aspect ratio part~~ microstructure produced by the process comprises an aspect ratio of greater than or equal to 40:1.

20. (New) A process as claimed in claim 1, wherein the step of (a) exposing the SU-8 photoresist to the light without a filter further comprises delivering about 1512 mJ/cm^2 to the photoresist.

21. (New) A process as claimed in claim 1, wherein the step of (b) exposing the SU-8 photoresist to the light with a first filter that filters about 80% of the light at 365nm further comprises delivering about 2268 mJ/cm^2 to the photoresist.

22. (New) A process as claimed in claim 1, wherein the step of (c) exposing the SU-8 photoresist to the light with a second filter that filters about 90% of the light at 365nm further comprises delivering about 3780 mJ/cm^2 to the photoresist.

23. (New) A process as claimed in claim 1, wherein the step of (d) exposing the SU-8 photoresist to the light with a third filter that filters all of the light at 365nm further comprises delivering about 17010 mJ/cm^2 to the photoresist.

24. (New) A process as claimed in claim 1, wherein the light is UV light emitted from a high pressure mercury lamp.